

REMARKS

There are now pending in this application Claims 1-4 and 6-19, of which Claims 1, 16, and 19 are independent. Claim 5 has been cancelled without prejudice or waiver of its subject matter. No claims have been added.

In view of the above amendments and the following remarks, favorable reconsideration and allowance of the above application is respectfully sought.

As the Examiner will appreciate, each of at least independent Claims 1 and 16 has been amended to eliminate reference to vibrating means and replace that reference more specifically with recitation of a carriage and to more clearly recite that moving the carriage is to vibrate the transporting means without performing a printing. In view of these and other amendments, it is respectfully submitted that each of the independent claims distinguishes over the applied art of record.

The invention as recited in Claim 1 is a printing apparatus including transporting means for transporting a printing medium relative to printing means, the apparatus comprising a carriage for supporting the printing means and reciprocating the printing means in a direction crossing a direction in which the print medium is transported. As set forth in Claim 1, the printing apparatus performs transportation by the transporting means and printing by the printing means in sequence and the carriage moves to vibrate the transporting means without performing printing after the transporting means completes a transportation and before the printing means starts a printing.

Claim 16 is directed to a printing method utilizing an apparatus of the type set forth in Claim 1 and further defining the method step of moving the carriage to vibrate the

transporting means without performing a printing after the transporting means completes a transportation and before the printing means starts a printing.

Independent Claim 19 is directed to a printing apparatus having a carriage on which a printer is mounted together with a carriage motor for driving the carriage and a transporting motor for driving the transporting roller. As set forth in Claim 19, at the time after the transporting roller completes the transportation and before the printer starts a printing, and then a condition of stopping the transporting motor, the carriage motor causes the carriage to move without performing a printing by the printer.

Each of independent Claims 1, 16, and 19 stands rejected under 35 U.S.C. § 102, as being anticipated by one of Kimura, et al., Miyazaki, et al., and Matsumoto. Given the above amendments and for reasons which follow, the rejections are respectfully traversed.

Kimura, et al. is directed to a printing apparatus in which a vibrator is attached to the carriage on which the printing head is mounted. In Kimura, et al. there is a linear guide for the carriage and a vibration driven motor in which a vibrator goes straight ahead on a rail-shaped stator. The vibration of the vibrator 1 causes a rotation of the roller 17 which in turn rotates a feed roller and a delivery roller through use of a belt. The vibrator in Kimura, et al. guides the carriage for printing or vibrates the feed roller and delivery roller. In contrast, in the present invention as now set forth in the independent claims, the vibrating means vibrates the transporting means after the transporting means completes a transportation and before the printing means starts a printing operation. Thus, the vibration is not performed in order to cause a printing operation to start or for sub-scanning, but rather in order to allow a roller which stops

at an unstable phase to rotate up to a stable phase. Thus the invention as now set forth in the independent claims is clearly distinguishable from Kimura, et al.

Miyazaki, et al. relates to a serial printing device including a serial printing head mounted on a carriage. The Examiner refers to column 5 of this reference and as described therein, when the printing for the extension printing region end is completed, the carriage control means decelerates the carriage and stops it at a preset position. Then the carriage control means moves the carriage to the end point again and the paper feed control means feeds the paper by one dot. Of the data for the extension printing region end, the print data for the lines which are shifted from the lines printed in the previous printing operation is extracted by the print data extracting means and the carriage is moved again toward the home position as in the previous printing operation.

Matsumoto is directed to a sheet discharging apparatus and an image forming apparatus having the sheet discharging apparatus. Matsumoto features a carriage 404 that is linearly driven by a carriage motor 407 and there is also included a conveying roller 302 together with a conveying motor 309.

However, as now set forth in each of the independent claims of the above-identified application, the present invention vibrates a transportation roller by moving a carriage after transporting means has completed transportation of a print medium and before a printing means starts printing and does so not for the purpose of printing, but for the purpose of causing the transportation roller that is stopped at an unstable phase to rotate to a stable phase. None of the three above cited references teach or suggest this specific combination of features of the

invention as set forth in each of Claims 1, 16, and 19. Accordingly, each of those independent claims is believed patentable over the applied art of record.

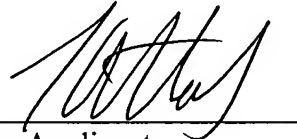
The remaining claims in the above application are dependent claims which depend either directly or indirectly from one of the above independent claims and are therefore patentable over the art of record for reasons noted above with respect to the independent claims. In addition, each recite features of the invention still further distinguishing it from the applied art. Favorable and independent consideration thereof is respectfully sought.

Applicants respectfully request entry of these amendments after final as they are being presented in an earnest effort to advance prosecution and place the application in condition for allowance. The amendments were not previously presented as Applicants were already of the belief that the claims on file were allowable over the art of record. In addition, Applicants note that no claims have been added and one claim has been cancelled, thus even further simplifying examination of this application. Accordingly, entry of the above amendments is respectfully sought.

Applicants respectfully submit that this application is in condition for allowance. Entry of the above amendments and early passage to issue of the above application are respectfully sought.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'L. Stahl', is written over a horizontal line.

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